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bothe by sp³ carbon atoms, and optionally from other monomers, this process comprising the following steps:

- heating the starting reaction medium, in the absence of dimerization catalyst, to a temperature of at least 80°C, and of not more than 200°C, for a period of less than 24 hours;
- ii) reacting the reaction product from step i) containing unreacted monomers with a (cyclo)condensation catalyst, under (cyclo)trimerization conditions;
- iii) removing the unreacted starting monomers from the reaction product from step ii); and
- iv) isolating the low-viscosity polyfunctional isocyanate composition comprising at least one isocyanate trimer and/or biuret compound and at least one isocyanate dimer.
- 49. (Twice Amended) A process for the preparation of a low-viscosity polyfunctional isocyanate composition containing at least one compound selected from the group consisting of an isocyanate trimer containing an isocyanurate unit, a compound containing a biuret unit and mixtures thereof, and at least one isocyanate dimer containing a uretidinedione unit, from starting isocyanate monomers, in which the isocyanate groups are borne by sp³ carbon atoms, and optionally from other monomers, this process comprising the following steps:
- i) heating the starting reaction medium, in the absence of dimerization catalyst, to a temperature of at least 120°C, and of not more than 170°C, for a period of less than 5 hours;



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reacting the reaction product from step i) containing unreacted monomers with a (cyclo)condensation catalyst, under (cyclo)trimerization conditions;

- iii) \ removing the unreacted starting monomers from the reaction product from step ii); and
- iv) isolating the low-viscosity polyfunctional isocyanate composition comprising at least one isocyanate trimer and/or biuret compound and at least one isocyanate dimer.
- 50. (Twice Amended) A process for the preparation of a low-viscosity polyfunctional isocyanate composition containing at least one compound selected from the group consisting of an isocyanate trimer containing an isocyanurate unit, a compound containing a biuret unit and mixtures thereof, and at least one isocyanate dimer containing a uretidinedione unit, from starting isocyanate monomers in which the isocyanate groups are borne by sp³ carbon atoms, and optionally from other monomers, this process comprising the following steps:
- i) reacting the starting monomers with a (cyclo)trimerization or (cyclo) condensation catalyst under (cyclo)trimerization or (cyclo)condensation conditions;
- ii) heating the reaction product from step i) containing unreacted isocyanate monomers, in the absence of dimerization catalyst, to a temperature of at least 80°C, and of not more than 200°C, for a period of less than 24 hours;
- iii) removing the unreacted starting monomers from the reaction product from step ii); and

isolating the low-viscosity polyfunctional isocyanate composition comprising at least one isocyanate trimer and/or biuret compound and at least one isocyanate dimer.

- 51. (Twice Amended) A process for the preparation of a low-viscosity polyfunctional isocyanate composition containing at least one compound selected from the group consisting of an isocyanate trimer containing an isocyanurate unit, a compound containing a biuret unit and mixtures thereof, and at least one isocyanate dimer containing a uretidinedione unit, from starting isocyanate monomers in which the isocyanate groups are borne by sp³ carbon atoms, and optionally from other monomers, this process comprising the following steps:
- i) reacting the starting monomers with a (cyclo)trimerization or (cyclo) condensation catalyst under (cyclo)trimerization or (cyclo)condensation conditions;
- heating the reaction product from step i) containing unreacted isocyanate monomers, in the absence of dimerization catalyst, to a temperature of at least 120°C, and of not more than 170°C, for a period of less than 5 hours;
- iii) removing the unreacted starting monomers from the reaction product from step ii); and
- iv) isolating the low-viscosity polyfunctional isocyanate composition comprising at least one isocyanate trimer and/or biuret compound and at least one isocyanate dimer.



(Twice Amended) A process according to claim 59, comprising adding to the reaction medium containing the starting monomers a compound of general formula II and/or NI below:

in which

one or more of X_1 , X_2 and X_3 represents a group R'-(N=C=O)_p in which R' is an aliphatic group and p is an integer ranging from 0 to 5, the others representing, a group of formula

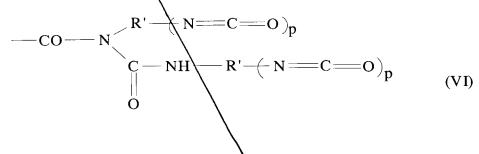
 R_1 is a hydrocarbon group having 1 to 30 carbon atoms, in which the hydrocarbon chain optionally is interrupted by one or more chalcogen atoms and optionally, bears 1 to 3 OH

groups with the OH groups optionally substituted, with a group CONX₁H, X₁ being as defined above, at least one of NX'₁X''₁, NX'₂X''₂ and NX'₃X''₃ represents the group,

$$\begin{array}{c}
R' \longrightarrow (N = C = O)_p \\
C \longrightarrow (N + C) \longrightarrow (V)
\end{array}$$

$$\begin{array}{c}
C \longrightarrow (V)
\end{array}$$

the others representing a group NX_1H or NX_1 -silyl and R_2 being a hydrocarbon group having 1 to 30 carbon atoms, in which the hydrocarbon chain optionally is interrupted by one or more chalcogen atoms and optionally, bears 1 to 3 OH groups, with the OH groups optionally substituted, with a group $CONX_1H$, or



and n is an integer ranging from 1 to 3.

62. (Twice Amended) A process according to Claim 60, wherein said compound of general formula I is selected from pentaerythritol or trimethylolpropane, and the compounds of general formulae II and III are selected from the corresponding pentaerythritol or trimethlolpropane derivatives of general formula II or III or both II and III wherein R_1 or R_2 or both R_1 and R_2 represents a group selected from CH_2OH or CH_3CH_2 .

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66. (Twice Amended) A composition comprising at least one compound of general formula X:

$$(O - C - N)_p - R' - N - N - (N - C - O)_p$$

$$(O - C - N)_p - R' - N - (N - C - O)_p$$

$$(X)$$

in which R' is an aliphatic group and p is an integer ranging from 0 to 5, and at least one compound of general formula II:

$$R_1$$
 $CH_2OCONHX_1$
 $CH_2OCONHX_2$
 $CH_2OCONHX_3$
 n

in which one or more of X_1 , X_2 and X_3 represents a group -R'-N=C=O and the others represent, a group

and R_1 is a hydrocarbon group having 1 to 30 carbon atoms, in which the hydrocarbon chain optionally is interrupted by one or more chalcogen atoms and optionally bears 1 to 3 OH group, with the OH groups optionally substituted with a group CONX $_1$ H wherein X_1 represents $R'(-N=C=O)_p$

and n is an integer from 1 to 3;

and/or at least one compound of general formula III:

$$\begin{array}{c|c} & CH_2OCONX'_1X"_1 \\ \hline & CH_2OCONX'_2X"_2 \\ \hline & CH_2OCONX'_3X"_3 \\ \hline & n \end{array}$$
 (III)

in which at least one of NX'1X"1, NX'2X"2 and NX'3X"3 represents the group,

the others representing a group NX1H and

 R_2 being a hydrocarbon group having 1 to 30 carbon atoms, in which the hydrocarbon chain optionally is interrupted by one or more chalcogen atoms and optionally, bears 1 to 3 OH groups, with the OH groups substituted with a group CONX $_1$ H or

$$-CO - N - (N - C - O)_p$$

$$C - NH - R' - (N - C - O)_p$$

$$O$$

and/or a biuret compound obtained from an isocyanate of general formula VI

$$-CO = N - (N - C - O)_{p}$$

$$C = NH - R' - (N - C - O)_{p}$$

$$0$$
(VI)

said composition further being free of dimerization catalyst selected from phosphine, aminopyridine, phosphoramide, organometallic or tertiary amine.

69. (Twice Amended) A compound of general formula III

$$R_{2} = \begin{bmatrix} CH_{2}OCONX'_{1}X"_{1} \\ CH_{2}OCONX'_{2}X"_{2} \\ CH_{2}OCONX'_{3}X"_{3} \end{bmatrix}_{n}$$
(III)

CÓ

in which

at least one of NX' $_1$ X'' $_1$, NX' $_2$ X'' $_2$ and NX' $_3$ represents the group

$$\begin{array}{c}
R' \longrightarrow (N = C = O)_p \\
C \longrightarrow (N + C) \longrightarrow (N = C = O)_p \\
\parallel O
\end{array}$$
(V)

in which R' is an aliphatic group and p is an integer ranging from 0 to 5, the others representing a group NX_1H with X_1 representing a group $R'-(N=C=O)_p$ and R_2 being a hydrocarbon group having 1 to 30 carbon atoms in which the hydrocarbon chain optionally

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is interrupted by one or more chalcogen atoms and optionally bears 1 to 3 OH groups, with the OH groups optionally substituted with a group CONX₁H, or

$$-CO-N \xrightarrow{R'-(N=C=O)_p} C-NH-R'-(N=C=O)_p$$

$$\downarrow O$$
(VI)

and

n is an integer ranging from 1 to 3.

- 72. (Twice Amended) A compound according to Claim 69, wherein R' is an alkylene group ranging from 2 to 8 carbon atoms, optionally substituted with a hydrocarbon chain optionally bearing an isocyanate function, a norbornylmethylene group, a cyclohexylmethylene group or a 3,3,5-trimethylcyclohexyl methylene group.
- 75. (Twice Amended) A composition comprising:
 - at least one polyisocyanate composition according to Claim 65; and
- a polyester polyol having a viscosity of not greater than 10,000 mPa.s at $25\,^{\circ}$ C, and an Mw of between 250 and 8000.